UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

26192

7590

07/03/2008

FISH & RICHARDSON P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022

EXAMINER				
TSE, YOUNG TOI				
ART UNIT	PAPER NUMBER			
2611				

DATE MAILED: 07/03/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,013	12/11/2001	Carroll Philip Gossett	16113-384001	2062

TITLE OF INVENTION: LPC FILTER FOR REMOVING PERIODIC AND QUASI-PERIODIC INTERFERENCE FROM SPREAD SPECTRUM

SIGNALS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$0	\$1440	10/03/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correcte maintenance fee notificate	correspondence including bed below or directed other tions	ng the Patent, advance on nerwise in Block 1, by (a	ders and notification of n a) specifying a new corres	naintenance fees will pondence address; ar	be mailed to the current ad/or (b) indicating a sep	correspondence address as arate "FEE ADDRESS" for
		ock 1 for any change of address)	Fee(s) Transmittal. This c rs. Each additional p	ertificate cannot be used:	or domestic mailings of the for any other accompanying ent or formal drawing, must
FISH & RICHA PO BOX 1022 MINNEAPOLIS	7590 07/03 ARDSON P.C. 5, MN 55440-1022	/2008		Cartifi	cate of Mailing or Trans	smission g deposited with the United st class mail in an envelope above, or being facsimile late indicated below.
						(Depositor's name)
						(Signature)
			L			(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	A	TTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,013 ITTLE OF INVENTION SIGNALS	12/11/2001 N: LPC FILTER FOR	REMOVING PERIODI	Carroll Philip Gossett C AND QUASI-PERIOL	DIC INTERFERENC	16113-384001 EE FROM SPREAD SP	2062 ECTRUM
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE F	EE TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$ O	\$0	\$1440	10/03/2008
EXAM	INER	ART UNIT	CLASS-SUBCLASS			
TSE, YOU	UNG TOI	2611	375-147000			
 Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON 			(1) the names of up to or agents OR, alternativ (2) the name of a single registered attorney or a 2 registered patent attorlisted, no name will be	e name of a single firm (having as a member a pred attorney or agent) and the names of up to stered patent attorneys or agents. If no name is no name will be printed.		
(A) NAME OF ASSIG	GNEE		(B) RESIDENCE: (CITY	and STATE OR CO	JNTRY)	oup entity Government
	are submitted: To small entity discount p # of Copies	permitted)	o. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	1. Form PTO-2038 is authorized to charge	attached. the required fee(s), any do	
a. Applicant claim	tus (from status indicateds SMALL ENTITY statu	is. See 37 CFR 1.27.	b. Applicant is no long			
interest as shown by the i	records of the United Sta	tes Patent and Trademark	Office.	ie applicant; a registe	ieu auoiney or agent; or t	he assignee or other party in
Authorized Signature				Date		
Typed or printed name				_		
an application. Confident submitting the completed his form and/or suggesti	tiality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DC	U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the	1.14. This collection is est depending upon the indiv e Chief Information Office	mated to take 12 mir idual case. Any comi r. U.S. Patent and Tra	utes to complete, including the next on the amount of the amount of the demark Office. U.S. Den	d by the USPTO to process) ng gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

OMB 0651-0033

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,013 12/11/2001		Carroll Philip Gossett	16113-384001 2062	
26192 7	590 07/03/2008		EXAM	IINER
FISH & RICHA	RDSON P.C.	TSE, YO	UNG TOI	
PO BOX 1022			ART UNIT	PAPER NUMBER
MINNEAPOLIS, MN 55440-1022			2611	
			DATE MAILED: 07/03/200	8

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 134 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 134 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)
	10/015.013	GOSSETT, CARROLL PHILIP
Notice of Allowability	Examiner	Art Unit
	YOUNG T. TSE	2611
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.31	S (OR REMAINS) CLOSED in) or other appropriate commu RIGHTS. This application is s	this application. If not included nication will be mailed in due course. THIS
1. \boxtimes This communication is responsive to <u>the RCE filed on 05</u> .	<u>June 2008</u> .	
2. X The allowed claim(s) is/are 20,21,23-25 and 30-39.		
 3. ☐ Acknowledgment is made of a claim for foreign priority u a) ☐ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 3. ☐ Copies of the certified copies of the priority documents have 	e been received. e been received in Application	n No
International Bureau (PCT Rule 17.2(a)). * Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDON! THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be subn INFORMAL PATENT APPLICATION (PTO-152) which give	MENT of this application. nitted. Note the attached EXA	MINER'S AMENDMENT or NOTICE OF
5. X CORRECTED DRAWINGS (as "replacement sheets") mu		
(a) including changes required by the Notice of Draftsper	_	(PTO-948) attached
1) hereto or 2) to Paper No./Mail Date	_	
(b) including changes required by the attached Examiner Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in	1.84(c)) should be written on th	e drawings in the front (not the back) of
6. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT	osit of BIOLOGICAL MATE	RIAL must be submitted. Note the
Attachment(s)	5 Phyline of he	Sance I Defeat Application
1. Notice of References Cited (PTO-892)		ormal Patent Application
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	Paper No./I	ımmary (PTO-413), Mail Date
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 	/. ⊠ Examiner's /	Amendment/Comment
4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. ☐ Examiner's :	Statement of Reasons for Allowance

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 5, 2008 has been entered.

Drawings

2. The drawings were received on June 2008. These drawings are acceptable.

Allowable Subject Matter

3. Claims 20-21, 23-25 and 30-39 are allowed.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Matthew J. Smyth on June 20, 2008.

The application has been amended as follows:

In claim 20 (line 4), claim 30 (lines 1 and 2), claim 31 (lines 4 and 11), claim 32 (line 3), and claim 39 (line 2), the term "periodic or" has been changed to "periodic and/or".

In claim 20, line 13, the term "predictive coefficients" has been changed to "predictive coefficients, such that the periodic and/or quasi-periodic interference component is substantially filtered out".

In claim 30, line 14, the term "predictive coefficients" has been changed to "predictive coefficients, such that the periodic and/or quasi-periodic interference component is substantially filtered out".

In claim 31, line 11, the term "component is" has been changed to "component is substantially".

In claim 32, line 10, the term "predictive coefficients" has been changed to "predictive coefficients, such that the periodic and/or quasi-periodic interference component is substantially filtered out".

In claim 34, line 1, the term "wherein the antenna circuitry is configured to receive a spread spectrum signal that" has been changed to "wherein the spread spectrum signal".

In claim 35, line 1, the term "wherein the antenna circuitry is configured to receive a spread spectrum signal that" has been changed to "wherein the spread spectrum signal".

Page 4

5. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: In Figure 5, the output " $b_p(n)$ " from the LPC filter 504 has been changed to "e(n)" as described in the specification. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is 571- 272-3051. The examiner can normally be reached on Monday-Friday 10:00-6:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on 571- 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/015,013 Page 5

Art Unit: 2611

/YOUNG T. TSE/ Primary Examiner, Art Unit 2611